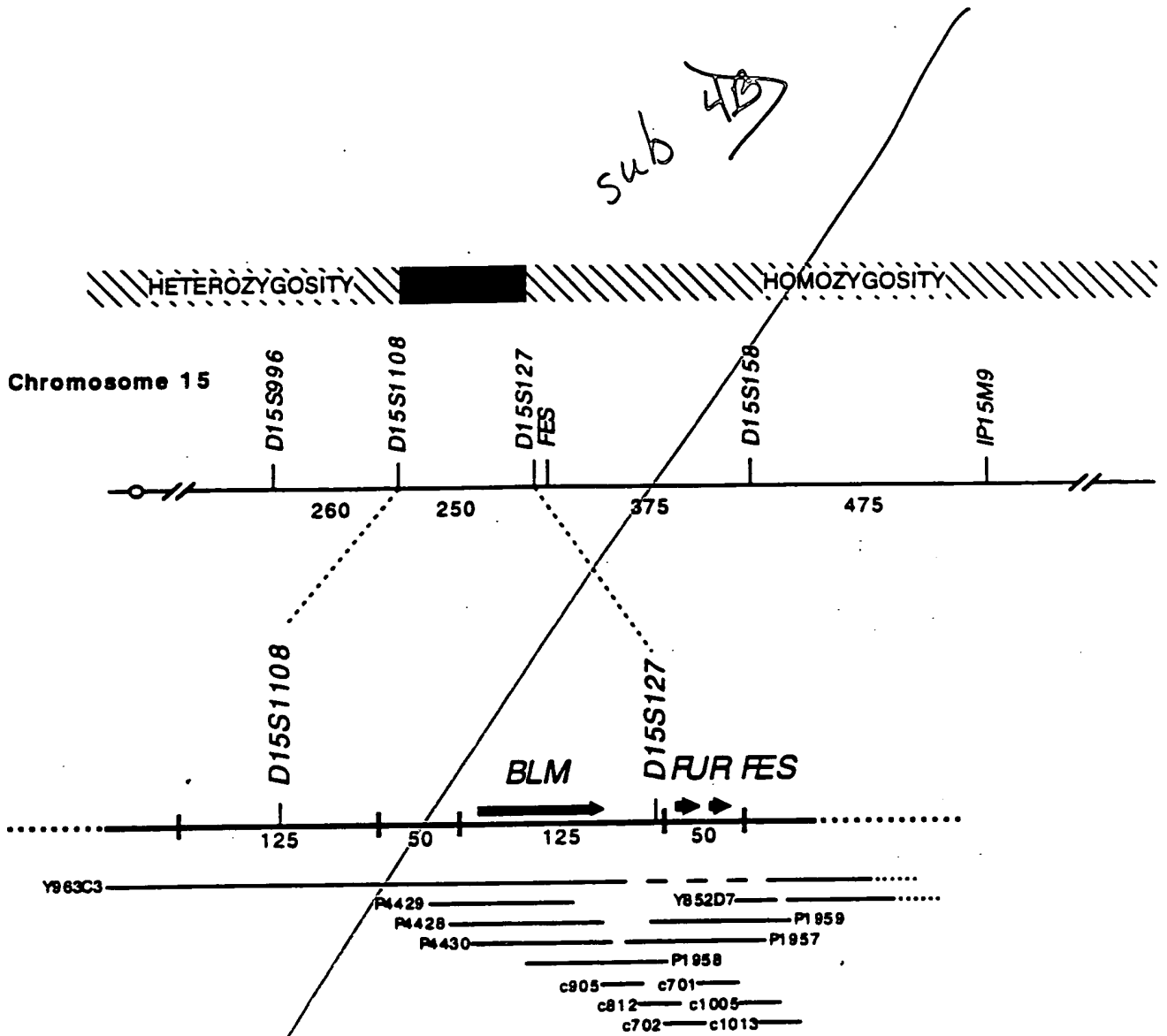


FIGURE 1A



097543260

FIGURE 1B

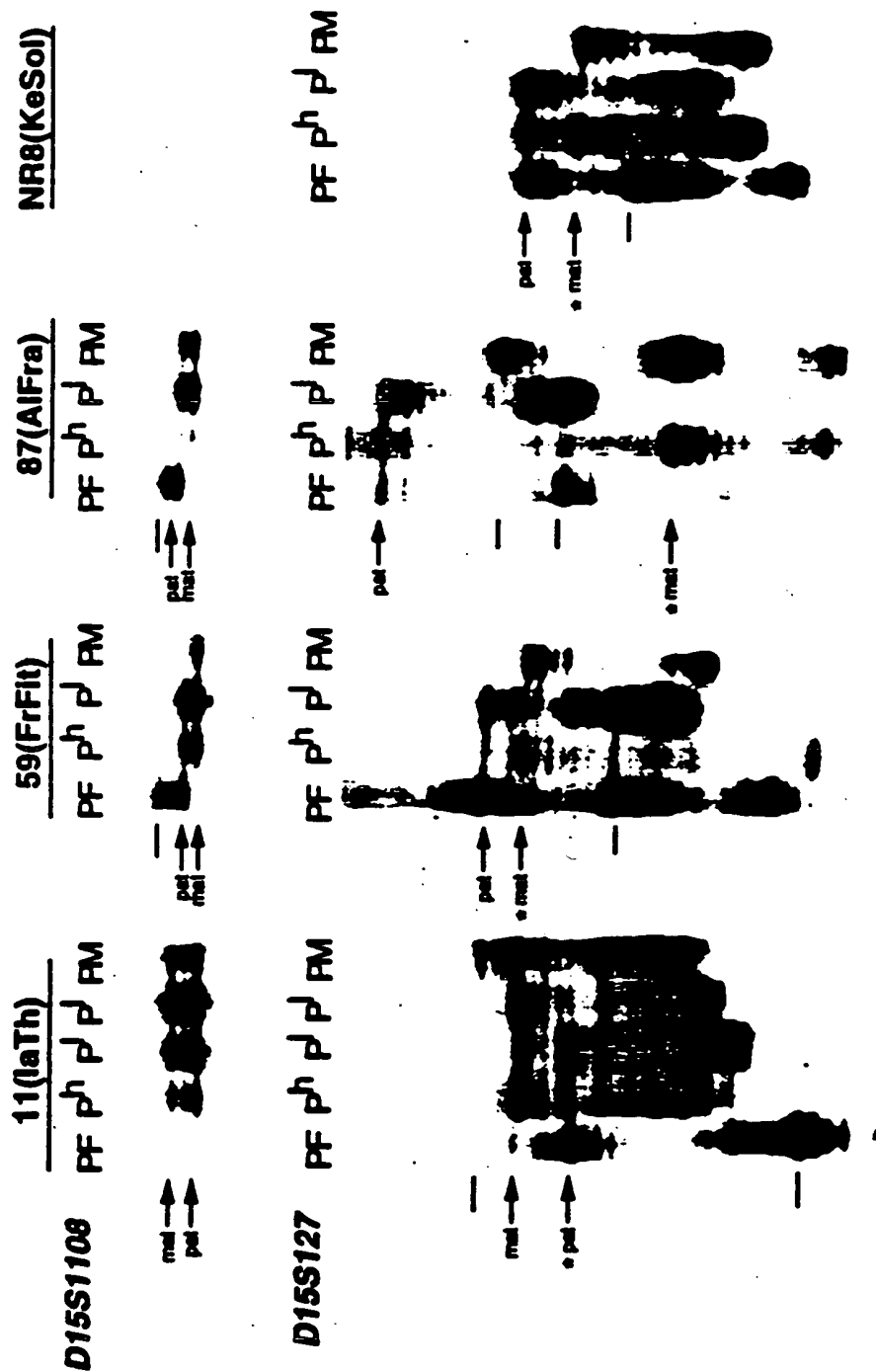


FIGURE 2

gcyggyggyggytgggttgcgggcyggtttggatcctggttccggtccgctaggagctctgcaggattatggcct 80
M A
GCTGTTCTCTCAAAATAATCTACAGGAGCACTAGAACGTCAGCCAGAACACTTAATAATAAATTAAGTCTTTTCAAA 160
3 A V P Q N N L Q E Q L E R H S A R T L N N K L S L S K
ACCAAAATTTTTCAGGTTTTCACCTTTTAAAAAGAAAACATCTTCAGATAACAATGTATCTGTAACCTAATGTGTCTAGTACAA 240
30 P K F S G F T F K K K T S S D N N V S V T N V S V A
AAACACCTGTATTAAGAAATAAGATGTTAATGTTACCGAAGACTTTTCTCTCAGTGAACCTCTACCCAACACCACAAAT 320
56 K T P V L R N K D V N V T E D F S F S E P L P N T T N
CAGCAAGGGTCAAGGACTTCTTTAAAAATGCTCCAGCAGGACAGGAAACACAGAGAGGTGGATCAAAATCATTATTGCC 400
83 Q Q R V K D F F K N A P A G Q E T Q R G G S K S L L P
AGATTTCCTGACAGCTCCGAAGGAAGTTGTATGCACTACCCAAAACACCAACTGTAAAGAAATCCCGGATACTGCTC 480
110 D F L V T P K E V V C T T C T Q N T P T V K K S R D T A
TCAAGAAATAGAAATTAGTTTCTTTCACGAGATTCTTTAAGTACCATAATGATGGGATGATATGGATGACTTTGATACT 560
135 L K K L E F S S S P D S L S T I N D W D D M D D F D T
TCTGAGACTTCAAAATCATTGTGTACACCACCCCAAGTCACTTTGTAAAGTAAGCACTGCTCAGAAATCAAAAAAGG 640
163 S E T S K S F V T P P Q S H F V R V S T A Q K S K K G
TAAGAGAAATCTTTTAAAGCACAGCTTTATACAACAAACACAGTAAAGACTGATTTCCTCCACCCCTCTCTGAAAGCG 720
190 K R N F F K A Q L Y T T N T V K T D L P P P S S S S
AGCAATAGATTGACTGAGGAACAGAAGGATGACTCAGAATGGTTAAGCAGCGATGTGATTTCGATCGATGATGGCCCC 800
216 E Q I D L T E E Q K D D S E W L S S D V I C I D D G P
ATTGCTGAAGTGATATAAATGAAGATGCTCAGGAAAGTACTCTCTGAAAACCTCATTGGAAGATGAAAGAGATAATAG 880
243 I A E V I N E D A Q E S D S L K T H L E D E R D N S
CGAAAGTGAAGAATTTGGAAGAAGCTGAATTACACTTCACTGAGAAAGTTCCATGATTTGAATTTGATGATGATT 960
270 E K K K N L E E A E L H S T E K V P C I E F D D D D
ATGATACGGATTTTGTTCACCTTCTCCAGAAGAAATTATTTCTGCTTCTCTCTCTCAAAATGCCTTAGTACGTTA 1040
296 Y D T D F V P P S P E E I I S A S S S S S S K C L S T L
AAGACCTTGACACATCTGACAGAAAAGAGGATGTTCTTAGCACATCAAAAGATCTTTTGTCAAAACCTGAGAAAATGAG 1120
323 K D L D T S D R K E D V L S T S K D L L S K P E K M S
TATGCAGGAGCTGAATCCAGAAACCAGCACAGACTGTGACGCTAGACAGATAAGTTTACAGCAGCAGCTTATTCATGTGA 1200
350 M Q E L N P E T S T D C D A R Q I S L Q Q Q L I H V
TGGAGCACATCTGTAAATTAATTGATACTATTCTGTATGATAAAAGTGAAGTCTTTTGGATTGTGGGAACGAAGTCTTCAG 1280
376 M E H I C K I D T I P D D K L K L L D C G N E L L Q
CAGCGGAACATAAGAAGGAAACTTCTAACGGAAGTAGATTTTAATAAAAGTGATGCCAGTCTTCTTGGCTCATTTGTGGAG 1360
403 Q R N I R R K L L T E V D F N K S D A S L L G S L W R
ATACAGGCTGATTCACTTGTATGGCCCTATGGAGGGTGAATCTCTGCCCTACAGGGAATCTATGAAGGAGTTAAATTTT 1440
430 Y R P D S L D G P M E G D S C P T G N S M K E L N F
CACACCTTCCCTCAAATCTGTCTCTCTGGGACTGTTTACTGACTACCACCTAGGAAAGACAGGATTCTCTGCCACC 1520
456 S H L P S N S V S P G D C L L T T T L G K T G F S A T
AGGAAGAATCTTTTGAAGGGCTTTATTCAATACCCATTTACAGAAGTCCTTTGTAAAGTAGCAACTGGGCTGAAACACC 1600
483 R K N L F E R P L F N T H L Q K S F V S S N W A E T P
AAGACTAGGAAAAAATGAAGCTCTTATTTCCAGGAAATGTTCTCACAAGCACTGCTGTGAAAGATCAGAATAAAC 1680
510 R L G K K N E S Y F P G N V L T S T A V K D Q N K
ATACTGCTTCAATAAATGACTTAGAAAGAGAAACCCCAAGTCTCTATGATATTGATAATTGACATAGATGACTTTGAT 1760
536 H T A S I N D L E R E T Q P S Y D I D N F D I D D F D
GATGATGATGACTGGGAGACATAATGCATAATTTAGCAGCCAGCAAATCTTCCACAGCTGCCTATCAACCCATCAAGGA 1840
563 D D D D W E D I M H N L A A S K S S T A A Y Q P I R E
AGGTCCGCCAATTAAATCAGTATCAGAAAGACTTTCTCAGCCAAGACAGACTGTCTTCCAGTGTCTACTGCTCAAA 1920
590 G R P I R S V S E R L S S A K T D C L P V S S T A Q
ATATAAATCTCTCAGAGTCAATTCAGAATTATCTGACAAGTCAGCACAAAATTTAGCATCCAGAAATCTGAAACATGAG 2000
616 N I N F S E S I Q N Y T D K S A Q N L A S R N L K H E
CGTTTCCAAAGTCTTAGTTTCTCTCATACAAAGGAATGATGAAGATTTTTCATAAAAAATTTGGCCTGCATAATTTTAG 2080
643 R F Q S L S F P H T K E M M K I F H K K F G L H N F R
AACTAATCTCTAGAGCGGATCAATGCTGCACTGCTTGGTGAAGACTGTTTATCTCTGATGCCGACTGGAGGTGGTAAGA 2160
670 T N Q L E A I N A A L L G E D C F I L M P T G G G K
GTTTGTGTTTACCAGCTCCCTGCTGTGTTCTCTGGGGTCACTGTTGTCTCTCTCTGAGATCACTTATCGTAGAT 2240
696 S L C Y Q L P A C V S P G V T V V I S P L R S L I V D
CAAGTCCAAAGCTGACTTCTTGTGATATTCCAGCTACATATCTGTCAGGTGATAAGACTGACTCAGAAGCTACAAATAT 2320
723 Q V Q K L T S L Q I P A T Y L T G D K T D S E A T N I
TTACCTCCAGTTATCAAAAAAGACCAATCATAAACTTCTATATGTCACTCCAGAAAAGATCTGTGCAAGTAACAGAC 2400
750 Y L Q L S K K D P I I K L L Y V T P E K I C A S N R
TCATTTCCTACTCTGAGAAATCTCTATGAGAGGAAGCTCTTGGCAGCTTTTGTATTGATGAAGCACATTGTGTCACTCAG 2480
776 L I S T L E N L Y E R K L L A R F V I D E A H C V S Q

09753143 "0106001

FIGURE 2 (cont'd)

TGGGGACATGATTTTCGTCAAGATTACAAAAGAATGAATATGCTTCGCCAGAAGTTTCCTCTGTTCCGGTGATGGCTCT 2560
 803 W G H D F R Q D Y K R M N M L R Q K F P S V P V M A L
 TACGGCCACAGCTAATCCCAGGGTACAGAAGGACCTCTGACTCAGCTGAAGATTCTCAGACCTCAGGTGTTTAGCATGA 2640
 830 T A T A N P R V Q K D I L T Q L K I L R P Q V F S M
 GCTTTAACAGACATAATCTGAAATACTATGTATTACCGAAAAAGCCTAAAAAGGTGGCATTGATTGCCTAGAAATGGATC 2720
 856 S F N R H N L K Y Y V L P K K P K K V A F D C L E W I
 AGAAAGCACCACCATATGATTCAGGGATAATTTACTGCTCTCCAGGCGAGAATGTGACACCATGGCTGACACGTTACA 2800
 883 R K H H P Y D S G I I Y C L S R R E C D T M A D T L Q
 GAGAGATGGGCTCGCTGCTCTTGCTTACCATGCTGGGCTCAGTGATTCTGCCAGAGATGAAGTGACGAGAGAAGTGCGATTA 2880
 910 R D G L A A L A Y H A G L S D S A R D E V Q Q K W I
 ATCAGGATGGCTGTGAGGTTATCTGTGCTACAATTGCATTTGGAATGGGGATTGACAAACCGGACGTCGGATTGTTGATT 2960
 936 N Q D G C Q V I C A T I A F G M G I D K P D V R F V I
 CATGCATCTCTCCCTAAATCTGTGGAGGGTTACTACCAAGAATCTGGCAGAGCTGGAAGAGATGGGGAATATCTCACTG 3040
 963 H A S L P K S V E G Y Y Q E S G R A G R D G E I S H C
 CCTGCTTTTCTATACCTATCATGATGTGACCAGACTGAAAAGACTTATAATGATGAAAAAGATGGAACCATCATACAA 3120
 990 L L F Y T Y H D V T R L K R L I M M E K D G N H H T
 GAGAAACTCACTTCAATAATTTGTATAGCATGGTACTACTGTGAAAAATATAACCGAATGCAGGAGAATACAGCTTTTG 3200
 1016 R E T H F N N L Y S M V H Y C E N I T E C R R I Q L L
 GCCTACTTTGGTGAAAAATGGATTAACTCTGATTTTCTGAAGAAACACCCAGATGTTTCTTGTGATAATTGCTGTAAAAC 3280
 1043 A Y F G E N G F N P D F C K K H P D V S C D N C C K T
 AAAGGATTATAAAACAAGAGATGTGACTGACGATGTGAAAAGTATTGTAAGATTGTTCAAGAACATAGTTTCATCACAAG 3360
 1070 K D Y K T R D V T D D V K S I V R F V Q E H S S S Q
 GAATGAGAAATATAAAACATGTAGGTCCTTCTGGAAGATTACTATGAATATGCTGGTCGACATTTTCTTGGGGAGTAAG 3440
 1096 G M R N I K H V G P S G R F T M N M L V D I F L G S K
 AGTGCAAAATCCAGTCAGGTATATTGGAAGAGATCTGCTTATTCACGACACAATGCCGAAAGACTTTTAAAAAGCT 3520
 1123 S A K I Q S G I F G K G S A Y S R H N A E R L F K K L
 GA2 ICTTGACAAGATTTTGGATGAAGACTTATATATCAATGCCAATGACCAGGCGATCGCTTATGTGATGCTCGGAAATA 3600
 1150 I L D K I L D E D L Y I N A N D Q A I A Y V M L G N
 AM XCCTACTGTACTAAATGGCAATTTAAAGGTAGACTTTATGGAACAGAAAATTCAGCAGTGTGAAAAACAAAAA 3680
 1176 K I Q T V L N G N L K V D F M E T E N S S S V K K Q K
 GCTTAGTAGCAAAAGTGTCTCAGAGGGAAGAGATGGTTAAAAAATGTCTTGGAGAACTTACAGAAGTCTGCAAAATCTCT 3760
 1203 A L V A K V S Q R E E M V K K C L G E L T E V C K S L
 GGGGAAAGTTTTTGGTGTCCATTACTTCAATATTTTTAATACCGTCACTCTCAAGAAGCTTGCAGAATCTTTATCTTCTG 3840
 1230 G K V F G V H Y F N I F N T V T L K K L A E S L S S
 ATCCTGAGGTTTTGCTTCAATTTGATGGTGTACTGAAGACAACTGGAATAATATGGTGGGGAAGTGATTTCAGTATTA 3920
 1256 D P E V L L Q I D G V T E D K L E K Y G A E V I S V L
 CAGAAATCTCTGAATGGACATCGCCAGCTGAAGACAGTTCCCCAGGGATAAGCCTGTCCAGCAGCAGAGGCCCCCGAAG 4000
 1283 Q K Y S E W T S P A E D S S P G I S L S S S R G P G R
 AAGTGCCGCTGAGGAGCTTGACGAGGAAATACCGTATCTTCCCACTACTTTGCAAGTAAAACAGAAATGAAAGGAAGA 4080
 1310 S A A E E L D E I P V S S H Y F A S K T R N E R K
 GGAAAAAGATGCCAGCCTCCCAAAGGTCTAAGAGGAGAAAAACTGCTTCCAGTGGTTCCAAGGCAAAGGGGGGCTGCCC 4160
 1336 R K K M P A S Q R S K R R K T A S S G S K A K G G S A
 ACATGTAGAAAGATATCTTCCAAAACGAAATCTCCAGCATCATGGATCCAGTTCAGCCTCACATACTTCTCAAGCGAC 4240
 1363 T C R K I S S K T K S S S I I G S S S A S H T S Q A T
 ATCAGGAGCCAATAGCAAAATGGGGATTATGGCTCCACCGAAGCCTATAAATAGACCGTTCTTAAGCCTTCATATGCAT 4320
 1390 S G A N S K L G I M A P P K P I N R P F L K P S Y A
 TCTCATACaaccgaatctcaatgtacatagaccctctttcttctgttctgacatctgaccatctgtgacataaagctg 4400
 1416 F S
 ttattcttcttataccaaaaaaaaaaaaaaaaaaaaaa 4437

FIGURE 4

I

Ia

649 FEHTKEMKIFKKEGHNRTNMAATLGEDFIEMPTGGGKSLCYOLEKCH---TVVHSPLRSGLVDQV BLM
 74 FPWSGKVKDITONVEKLEKFRBLQLEPINVTAGKEVFLVMPETGGGKSLCYOLPALC---LAFITLVICPLISLMEDQL REQ
 659 YEWSDEVLYRLHEVEKLPGERPQLEAVNATLOGKDVFLVMPETGGGKSLCYOLPAVYKSGKTHGTITIVISPLISLMQDOV SGS1
 16 -----VDETEGYYOQERPGSEEIEDTVSQRDLVMPETGGGKSLCYOIPALL-----LNGLDQVSPILISLMKDOV recQ

II

725 OKTSLDIPATYETGDKYDSEATNIYLQLSKEDPIKLLYVTEPERICASNRLISTEENLYERKLARFIIDEAHCVSOWG BLM
 150 MVEKQLGISATMLNASSSSKEHVKNWHDENVKNSLEKITYVTPEKIAKSKFMSEKAYEARFRTRIAVDEVHCCSOWG REQ
 739 EHLNNTIKKSMFSSRGTAQRROTFFNLFIN--FLNDEVYSPEMTSAEQCKRAISRLYPDGKCARIVDEAHCVSNNG SGS1
 83 DOHQANGVAAACLNSTOEREGOLEVMT--GCRTGGRRLYAPERL---LIDNFTHEH--HWNPVLLAVDEAHCVSOWG recQ

III

805 HDERQDYKRMNMLKOKFESVEVMAITATANPRYOKDILLTOLKLRPOVESMSSEHNRKYVPPKPKKVA---YDCLEW BLM
 230 HDERDYKALGLIKROFPNASLEGITATATNHULTDAQKIECEKFTTASENRPNL--YEVROKPSNTEDFIEDIVKL REQ
 817 HDERDYKELKFFKREYEDIMIAITATASEQRMOTIHNLLEKEEVFLKQSENRTNL--YEVNKTQNT---IFEICDA SGS1
 157 HDERPEYALGQLEQRPEITLFAITATADDTTEQDEVRLQGNDELIQISSDEPNIRY--MMEKFKPLDQLM---RY recQ

IV

882 BRKHHPYDSGTTIYCLSRREGDTMADTLQEDGLAALAYHAGLSDSARDEVQOKWINQGGCOVQATIAFGMGIDKPDVRFV BLM
 309 ENGRYKQSGIIFYCFSQKDEQVTVSLQNLGTHAGAYHANLEPEDKTTTHRWKSANE--IQVWVATVAFGMGIDKPDVRFV REQ
 893 AKSRFKNGTGLIYCHSKKSCPTSAQMQRNGEKCAYYHAGMEPPERLSVOKANQADE--IQVWVATVAFGMGIDKPDVRFV SGS1
 233 VQEQ--RGKSGIIFYCNSRAKVEDTAAALQSKGISAAAYHAGLENNVRADYQERFRDD--LQVWVATVAFGMGINKPNVRFV recQ

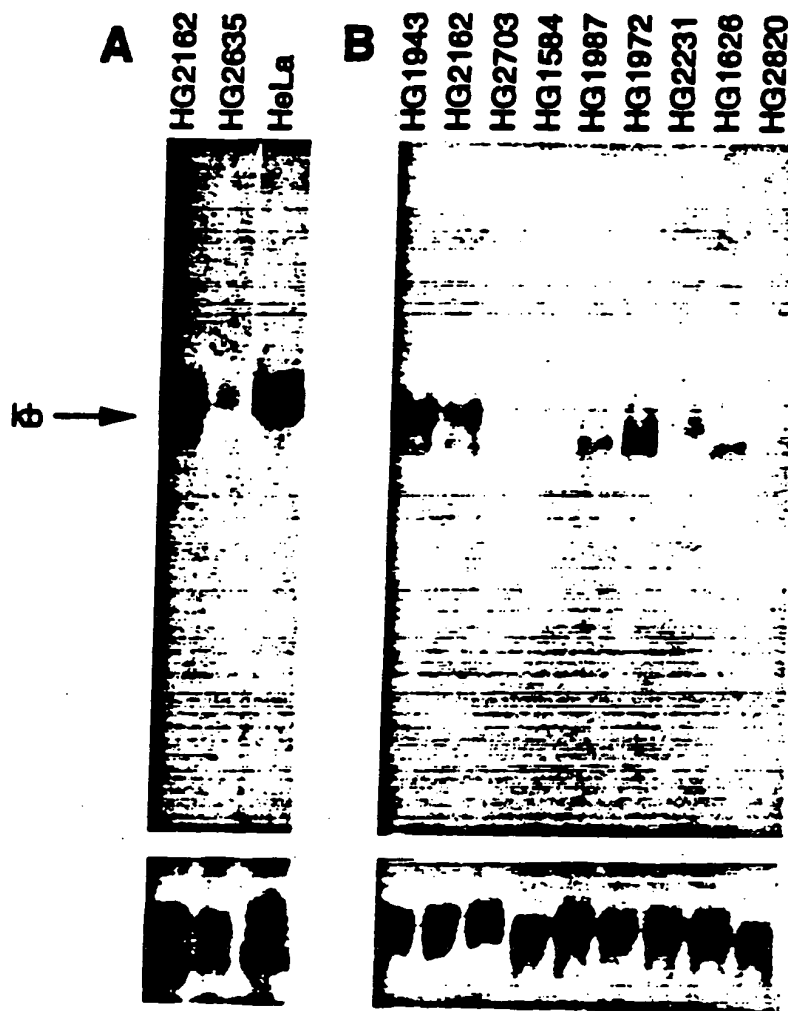
V

962 IHAFLPKSVEGYQESGRAGRDEIHCLEFYTYHDVTRLKQLIMMEKDCNHHTRETHFANLYSMVHYCENTITECRRIQL BLM
 388 IHHMSKSMENYYQESGRAGRDDMKADCLIFGEGDIFRISSMVVMENVQO-----KLYEMVSYQONISKSRRLVLM REQ
 972 YHFTVPEITLEGYYQESGRAGRDGNYFYCITEFSEDRITMOTMIQDKNDRENKELNKLQOVHAYCDNVTDCCRKGV SGS1
 311 VHEDIENIESKYQESGRAGRDGLPAEAMGEYDPADMAWLRRCLEEKPOQLODIERH--KINAMGAFAEAQT--CRRLVL recQ

VI

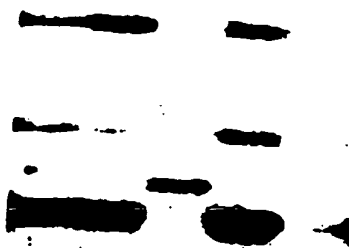
753143.010201

FIGURES 5A and 5B



FIGURES 6A - 6E

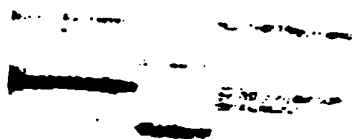
a



b



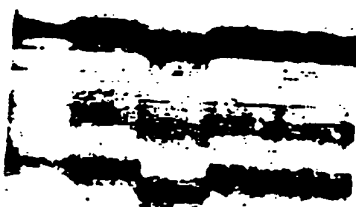
c



d



e



09753143-010201